

become greenish or whitish and opaque after some time; and, if exposed to too dry an atmosphere, both pupation and the exclusion of the imago are rendered impossible or difficult. Therefore, I imagine a close, membranaceous cocoon is a necessity."

I have found, in examining a large number of specimens of cocoons of *C. scrophulariæ*, no exception to the existence of punctures in them, altho the punctures are never large enough to be termed open meshes. Were it not for these punctures the cocoons of *C. scrophulariæ* would be, to all appearances, hermetically sealed. This is not the case with the cocoons of *bombyciæ*, as can be seen readily, by covering a portion of a cocoon with soapy water

and blowing through the portion to be tested. The numerous bubbles which form on the outside in such an experiment are clear proof of the passage of air through the cocoon-walls. Even the very compact inner lining of the cocoon of *Attacus promethea* readily allows the passage of air.

Treated with dilute acids the cocoon of *C. scrophulariæ* shows little change; alkalis dissolve out of it, as they do out of cocoons of *bombyciæ* and even out of portions of insects themselves, a brownish-yellow coloring matter, which loses its color on being acidulated, and regains it upon again making the solution alkaline. The whole cocoon of *C. scrophulariæ* is soluble in strong nitric acid.

## NOTES ON PTEROPHORIDÆ OF NORTH AMERICA. 2.

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In the list of references concerning *pterophoridae* which I published in *PSYCHE*, Sept.-Oct. 1883, v. 3, p. 402-404, I omitted, by some accident, all references to a paper published by Dr. D. S. Kellcott in the Bulletin of the Buffalo society of natural sciences for January 1882, and afterwards as a separate. Wishing to make my notes as complete as possible I add the following data taken from that paper, the title of which is "Notes on the larvae of some local *pterophoridae*."

*Platyptilus carduidactylus* Riley. Kellcott (Bull. Buffalo soc. nat. sci., Jan. 1882, v. 4, p. 47) gives notes on the larva and pupa of this species, and states that it is often

parasited by a variety of *Ichneumon humilis*. Provancher.

*Oedematophorus cretiodactylus* Fitch (1st and 2nd Repts. nox. ins. N. Y., 1856, p. 142). Kellcott (Bull. Buffalo soc. nat. sci., Jan. 1882, v. 4, p. 48-50) describes the larva and pupa of this species. The gregarious larvae feed upon *Eupatorium purpureum*, the leaves of which they fasten together with a web. N. Y., Cal., Vancouver's Isl.

*Lioptilus homodactylus* Walk. Kellcott (Bull. Buffalo soc. nat. sci., Jan. 1882, v. 4, p. 48-50) describes larva and pupa of this species. The gregarious larvae feed among leaves of *Eupatorium purpureum* which they have webbed together. Buffalo, N. Y.

*Aciptilus montanus*. Wlsm. Kellcott (Bull. Buffalo soc. nat. sci., Jan. 1882, v. 4, p. 51-52) describes larva and pupa; the former feeds upon the leaves of different species of *Solidago*. Buffalo, N. Y.